FinTech and Consumers:
A Preliminary Overview of Important Consumer, Privacy, Small Business, and Civil Rights Issues

Technological innovation and the rapid adoption of mobile phones, other digital devices and "Big Data" applications are bringing sweeping changes to the ways consumers engage and interact with financial services. These developments are unleashing far-reaching developments that will continue to impact businesses, competition, regulation, and consumer interaction with and use of financial products.

Numerous regulators have engaged on the issue, with workshops, white papers and proposals for FinTech regulation. In the late fall of 2016, the chief national bank regulator, the Office of the Comptroller of the Currency (OCC), provided an outline of a limited-purpose FinTech charter that consumer groups and state regulators contend will preempt strong state consumer protections, undercut existing federal laws and precipitate a race to the bottom.[1] Since then, the agency has gone through the presidential and a Comptroller transition, and been sued by state regulators for exceeding its authority[2], but is said to be preparing the next iteration of the proposed charter.[3]

In recent Brookings events, former Obama-era Treasury Assistant Secretary, Professor Michael Barr, and co-authors Karen Gifford and Aaron Klein, posited a definition:

> We employ the term "FinTech" to refer to new technology and innovation that enables the delivery of financial services. Examples of FinTech include the use of mobile phones for the delivery of financial services and the use of cloud computing, application programming interfaces (APIs), open protocols, enhanced data storage, analysis and management capabilities to reduce the time and cost of financial transactions.[4]

Klein, in a blog, went on to explain further:

> FinTech, the merger of finance and technology, has the potential to provide financial services faster, more efficiently, more conveniently, and more cheaply to everyone, including the historically underserved. However, these innovations also have the potential to produce products that inefficiently allocate capital and harm consumers, borrowers, investors, and businesses.

FinTech technologies developed for or adopted for the financial services industry are being used for both consumer-facing and business-to-business applications. FinTech companies take advantage of the capabilities of "Big Data" practices to offer online services that enable them to compete with the traditional banking and credit sector. Although it has been argued, with justification, that financial innovation is "nothing new," legacy financial services companies understand that adopting FinTech business methods is essential if they are to remain competitive and relevant at all.

There are a growing number of policy initiatives designed to foster the growth of FinTech services. But, the financial system is highly regulated for a variety of reasons and FinTech challenges some of the important safeguards that address privacy, consumer protection and the safety and soundness of the economy. Many critical questions regarding consumer protection must be raised. Is the start-up culture of many of these FinTech companies equipped to not only innovate but to safeguard consumer rights at the same time? Are new consumer protections, especially for the most vulnerable, needed or are existing laws adequate?

It is important that the landscape is changing rapidly and many fintech firms that raised their first, or even first and second, millions promising to disrupt one sector have since pivoted to another business model. A whirlwind of global activity is now underway, fueled by billions in venture capital (VC) and other investment. For example, the first quarter of 2018 witnessed a "record-breaking number" of VC investment in FinTech, including in Asia and Latin America. In the U.S., 2017 witnessed the highest number of "early stage" investment in FinTech, with $4.7 billion invested in the most recent six-month period.[5]

The growth of FinTech also reflects a much broader transformation that is rapidly redefining more than simply how consumers apply for credit or transfer funds. Nearly everything they do today—from grocery shopping, buying retail and entertainment products, communicating with friends, accessing information, and even voting—is influenced by the role of data and digital media. Smartphones, which are the dominate digital device and are used by nearly 80 percent of U.S. mobile subscribers, make nearly any service available at anytime, anywhere. Our mobile devices and computers, as well as many of the products and services we use—ranging from shopper-loyalty cards to ATMs to credit cards—are firmly connected to a vast data-driven and intelligent apparatus. Increasingly, information on individuals is continuously swept up into a powerful Big-Data processing system. Advances in predictive analytics and artificial intelligence have helped create more precise consumer profiles, constructed through algorithms, data, and marketing "clouds," enabling the capture of a nearly endless array of information on our lives.

There are also new ways to make all of this information, in the industry's term, "actionable" and personally tailored (increasingly in near- or actual real time).[6]

Since 2012, developments in the use of data analytics, advances in how digital marketing is constructed and delivered to individuals and groups, as well as the emergence of new "one-stop" shopping data broker sites have given financial services and others an array of effective tools to reach and influence consumer (and political) decision-making.[7] The recent controversy generated by Cambridge Analytica's relationship to Facebook, and its use by the Trump campaign, is a prime example of the changes that have occurred in data gathering and use in the U.S.[8]

The Facebook revelations creates an opportunity for advocates and others to press a case for technological reforms. Such efforts will be helped by the sweeping new European Union privacy law—the General Data Protection Regulation (GDPR)—that goes into effect on May 25 2018. The GDPR will force financial services and other consumer-facing companies operating in the EU to change a variety of their business practices, including the collection and use of data. Since a number of those companies are based in the U.S., there could soon be a new opening to press them to adopt changes made to satisfy the EU law on a worldwide basis.[9]

This should be a part of an agenda designed to ensure that 21st-century consumer financial services better serve the public interest—providing affordable products, adopting fair and transparent practices, and demonstrating true accountability. Industry leaders are in transition, restructuring their businesses to maintain or capture the revenue now made possible by the digital marketplace (such as offering mobile apps that encourage consumers to apply for loans, enabling transactions via PayPal to take place in Facebook's Messenger application, or using "chatbots" to encourage spending or offer financial advice).[10] Both they and their newer FinTech competitors are investing in or developing state-of-the-art products.

FinTech companies, such as peer-to-peer lenders Prosper, SoFi and LendUp, have built their operations taking advantage of such data-driven digital applications and consumer behavior.

These companies seek varying forms of favorable regulatory treatment. With both federal regulators and Congress continuing to operate in administrative transition mode, firms are also looking for special treatment from states, where a so-called regulatory "sandbox" law was recently enacted in Arizona; similar proposals are being considered in numerous states.[11]

There are antitrust and other competition concerns as partnerships and alliances are formed. As the financial system is "reset," the industry is likely to be potentially vulnerable to consumer advocacy that links the lessons of the country's economic crisis to new threats posed by Big Data and digital services. Leading civil rights and consumer groups, scholars, and policymakers, for example, have already cited the threats posed by the widespread role of algorithmic decision-making, invisible "scoring" practices, the role of data brokers, the use of "alternative data," and similar practices.[12] Another 21st century question is this: How should control of data be considered in antitrust reviews?

A host of privacy issues also loom as financial companies increasingly seek both to acquire new customers and to gain a "360-degree" view of those customers they already have. Cybersecurity concerns are also a key touchpoint for public concern, with data breaches roiling banks, leading online firms, and even the FDIC. Recent examples of corporate malfeasance by companies such as Wells Fargo, Lending Club, and LendUp are useful examples of how the consumer financial system, without effective oversight and enforcement, can wreak havoc.[13]

Funding for FinTech worldwide reached $31 billion in both 2016 and 2017.[14] According to BI Intelligence, some of the key developments shaping the growth of financial technology companies and services include the following:

- Legacy players and technology partners are stepping up to help drive FinTech industry growth through investments and by setting up accelerators and incubators.
- Governments are also increasingly supporting the development of FinTech industries.
- Media and investor attention is expanding beyond alternative lenders and payments firms to new segments including insure-techs, robo-advisors, blockchain, and digital-only banks.
- FinTechs continue to face challenges with customer acquisition.
- Profitability also remains elusive for many large FinTechs, despite attracting large volumes of customers and creating significant revenue.
- To manage the threat of disruption, incumbents are investing in FinTechs, partnering with them, hiring them as vendors, and building competitive solutions.[15]

Consumers especially value financial companies that use technology to provide them with "security services"; the "ability to see [their] financial life in one place"; that offer mobile payments; that "personalize the digital experience"; and that provide auto insurance pricing that incorporates the latest tech advances.[16] As a report from McKinsey and Co. explained, "…in the U.S., alone, 85 million Millennials, all digital natives, are coming of age, and they are considerably more open [to considering] a new financial services provider that is not their parents' bank." These "mobile first" individuals "are more open to relationships" than the products traditionally offered by banks. They seek financial services that provide them with an array of "personalized" offerings "on demand."[17]

FinTech companies are also using Facebook, Instagram, and other digital marketing applications that combine data and interactive experiences to influence consumers and their social networks. For example, SoFi, the student lending service, has run several Facebook and Instagram campaigns that used many advanced data-targeting tools, including one that "clones" potential targeted consumers based on how their behavior and background resembles known customers ("lookalike modeling"). They tracked their Facebook targets online to observe how they eventually responded. Facebook says that SoFi achieved a "39% increase in pre-approved applications for student and personal loans."[18]

Key Concerns

The many new developments in technology and Big-Data practices, as well as the emerging players in the financial services sector, will likely deliver many lasting innovations, but not all will advance consumer protection. There is nothing unique about marketplace lenders that should lead to any weaker consumer protections or regulatory exemptions. To the contrary, we fear that the market today is developing with little oversight and some signs of problems.

The framing of the debate by industry as innovation holding new promise for consumers should continue to be challenged. It diverts focus from the real risks and solutions, which require strong consumer protections and regulatory oversight.

Below we identify key risks that threaten to undermine equity, justice, and fairness, and specifically consumer rights and economic inclusion, and that are the results of the trends in the FinTech industry that we identified above.

1. Privacy Risks

An ongoing and increasingly challenging issue confronting citizens and consumers are new threats to their privacy and their ability to control how personal and non-personal data about their online and offline behavior are collected and used by online financial services companies. There are many new on- and offline data sources used to classify consumers and to make predictions about them. For example, social media, mobile device use, utility payments, or other public-record information are used in a myriad of ways: for identity verification, fraud prevention, credit risk evaluation, underwriting, marketing or prioritizing incoming customer service calls at call centers.[19] Sophisticated data-processing capabilities allow for more precise micro-targeting, the creation of comprehensive profiles, and the ability to act instantly on the insights gained from consumer behaviors.

Because of the importance of the mobile phone for accessing financial services and for paying for goods and services, consumers are particularly vulnerable regarding the exploitation of their geolocation information. Moreover, mobile-payment technologies offer third parties, banks, and FinTech companies the ability to collect more information about the payments-transaction process than would be possible with a debit/credit card, and to share it with different participants, such as merchants and payment providers.[20]

To appreciate fully the privacy risks in this new world, we need to remember that privacy has both an individual and a group component. Most existing privacy laws in the U.S. focus on the individual aspect, protecting personally identifiable information and aiming, more or less successfully, to provide individuals with certain controls over their data. Group privacy is also concerned with the individual autonomy and the protection of one's identity; it focuses, however, on characteristics about the group that the individual either belongs to or has been assigned to. The U.S. regulatory framework addresses these privacy risks inadequately.

2. Biased Data Analysis and Increased and Entrenched Inequality via Scoring

Perhaps the biggest risk to equity, fairness, and justice stemming from new practices in the financial services sector relates to the scoring of Americans.[21] All the new data points that are so easily available to these companies are analyzed through Big-Data algorithms. They are used to classify and score individuals using past data to make future predictions. Regulators must closely examine these non-transparent tools.

The use of classifying and predictive algorithms in FinTech (as in other areas) can be the source of bias and have a discriminatory effect in at least two obvious areas: the data input can be biased or contain errors, and the algorithms and classification schemes can be biased and can further entrench inequality. While companies have an incentive to "get the model right," the evidence is overwhelming that these models often produce biased and discriminatory outcomes.[22] "Getting the model right," in fact, might exacerbate these undesired outcomes. The Equal Credit Opportunity Act must also continue to play an important role in preventing disparity or discrimination. An important new report posits the following about automated decisionmaking:[23]

> "Algorithms also influence the production and dissemination of news, social and professional interactions among people, the delivery of social services, and the stability of financial markets. These trends have made algorithms objects of concern beyond the confines of computer science."

Recognizing that serving so called "thin-file" consumers can be good business, some companies have developed products that use non-traditional data, such as "cable, landline, mobile and utility payments, along with select public record information."[24] While alternative credit scoring can be a boon for the underbanked, there need to be standards and safeguards to ensure that any new data are used appropriately. New data sources may be biased and their use may lead to unintended consequences. For example, some credit scoring companies are promoting full-file reporting of utility-payment data to credit-reporting agencies. But mass incorporation of these data could give millions of low-income consumers bad or worse credit scores and could undermine state consumer protections, such as prohibitions against wintertime shut offs for vulnerable consumers (e.g., the elderly).[25]

Scoring and profiling techniques are by their very nature discriminatory tools.[26] They allow unparalleled kinds of social sorting and segmentation that could have unfair effects. These are not any kind of classifying and predictive algorithms, however; in the commercial space the models aim to sort people according to their ability to maximize profit or to minimize risk to the organization that deploys such techniques.[27]Sorting individuals according to their highest credit risk or lowest potential to contribute to the bottom line may further stratify consumers.[28] While this practice is rational from the point of view of the corporation (as it maximizes profit and reduces risk to the company), it is not necessarily efficient, fair, or just from a social point of view. So, new forms of both overt and covert discrimination may be one of the consequences that scoring has on economically vulnerable consumers.

While industry has argued that increased automation will help expand access to credit and lower costs overall, credit models that are more "accurate" may lead to increasingly stratified outcomes, as it will leave those at the bottom potentially excluded from credit forever. Models that judge individuals against group profiles based on past data inevitably incorporate elements of past inequality and discrimination. Communities of color, in particular, are thus most vulnerable.[29] Unless additional policies are put in place to address these consequences, inequality is likely to become more entrenched the more we rely on models for risk evaluations. [30]

3. **Price Discrimination**

Big-Data practices also allow firms with pricing power to identify the highest price a consumer is willing to pay for a good or service and charge accordingly. The practice upends the current distribution of wealth by allowing firms to charge the highest possible prices to everyone.

4. **Unfair and Deceptive Marketing Practices**

Financial services companies, including leading banks and FinTech companies, use many of the latest data-driven digital marketing tools. This includes the use of data-driven targeting platforms that make decisions in 200 milliseconds whether and how to target an individual, regardless of her device.[31] The combination of powerful ways to gather and use data (such as lead generation) along with alluring and personalized interactive applications, are used to identify and target consumers in real time. These practices can foster consumer behaviors that are not in the best interest of the individual, and also raise concerns about the use of data profiling.

Unfair and deceptive marketing practices also include the practices of so called lead generators that sell sensitive financial information and other consumer data to businesses that offer risky financial products and other controversial services, such as payday loans. Unregulated online advertising practices facilitate practices that hit the financially most vulnerable the hardest.[32]

5. **Threats to Consumers and Small Businesses**

It is important to understand that small business advocates are raising similar concerns. A leading advocacy group, Main Street Alliance, joined comments to the Office of the Comptroller of the Currency (OCC) on FinTech making the following point:

> Unfortunately, we believe innovation is already outpacing regulation and oversight, and there are several pieces of information to support this. In the media, online small business loans have already been compared to subprime mortgages.[…]

The comment goes on to cite to work by the authoritative Chicago-based Woodstock Institute:

> The Federal Reserve's 2015 Small Business Credit Survey reports that only 15 percent of small businesses that took out loans with an online lender were satisfied with their experience. And, Woodstock's analysis of 15 small business loan contracts from online lenders showed APRs ranging from 26 percent to 347 percent. Against this backdrop, regulatory reform seems past due. Advocates in Illinois, including Woodstock, are advocating for legislation that would create a regulatory regime for non-bank small business lenders.[33]

6. **Pushbacks From Legacy Banks; Some Valid, Some Not**
The Dodd-Frank Act, Section 1033, requires that consumers be given greater control over the sharing of their account information, to facilitate the development of new applications. Legacy banks raise many concerns. Some, including the argument that access by third-party data aggregators to account information poses risks to safety and soundness, are more valid than others. When are banks simply trying to defend their customer base and oppose competition? To some extent, arguments over risks from consumers granting password credentials to screen scraping firms are now more reasonable and concern how to set up safer Application Programming Interfaces (APIs) for transferring information to aggregators.[34] Nevertheless, aggregators and consumers continue to raise complaints.[35]

The Regulatory and Policy Landscape

We anticipated that 2017 would be a significant year for how FinTech will be treated by the new administration, Congress, and regulators. Federal regulators had signaled their interest in supporting the promises of the FinTech sector to consumers.[36] They generally have welcomed the promise of financial innovation, expecting that such developments can provide better, safer, more affordable, and more widely available financial products and services. Many FinTech firms continued to pressure agencies, including the CFPB, to provide guidance on what products can be developed without coming into conflict with regulations.[37]

However, due to transitions and uncertainty about leadership of most federal agencies, not much happened in Washington, so most action was in the states and courts, as noted above. Meanwhile, the status of the OCC's rumored fintech special charter remains unclear.

- **Office of the Comptroller of the Currency (OCC)**

The OCC issued a white paper in March 2016, in which the agency outlined how regulators might encourage innovation while ensuring safety and soundness.[38] The report correctly framed the policy issues in support of *responsible* innovation in the federal banking system. But innovation is not a uniformly positive thing. The key is to be supportive of responsible innovation that improves lives while maintaining robust consumer protection.

Several public interest organizations asked the OCC to be "vigilant in adoption of rules and procedures to prevent such unfair, deceptive, and abusive use of innovation from causing widespread harm, as it has in the recent past." Among other things, they asked the OCC to ensure that innovation does not result in a lack of transparency and accountability; emphasized the continued importance of brick-and-mortar branches for lower- and moderate-income people; and asked that the public be given access to data about innovations including information about the nature of the technology and who it is affecting.[39]

Subsequently, the OCC announced that it would establish an Office of Innovation, to be a central point of contact and clearinghouse for bank and FinTech requests starting in 2017.[40] Its fintech materials are primiarly archived here.[41] While such an office could be helpful, it must have a core consumer-protection mission. It should not primarily be an advocate for companies that are looking to loosen consumer-protection regulations.

The Charter: OCC, the federal regulator for banks that can operate across state lines, early on also expressed interest in granting a new type of special-purpose "national bank" charter for financial technology firms, including firms that engage in lending and other activities but do not take deposits.[42] FinTech firms do not like state-by-state licensing and would prefer to have to deal with only one regulator. Instead of having to follow regulations in 50 states, they emphasize the value of Internet-based technologies designed to let them reach customers regardless of geography.[43] The sole purpose of such a charter, however, would be to preempt state consumer-protection laws, which is a wholly inappropriate reason to provide a federal charter. Indeed, state regulators rebelled against this idea, citing lack of statutory authority, an OCC history of preempting state consumer-protection laws, and an approach that would distort the marketplace.[44] Again, small businesses also oppose the granting of a "limited purpose" or special federal charter to FinTech companies that would preempt state laws and regulations.[45]

In 2017, the OCC issued a further white paper explaining conditions related to the issuance of special-purpose charters for fintechs, but it has not yet issued a rule or accepted applications.[46]

Some banks have not been in support of a FinTech charter either, as it could give FinTech firms an advantage over the banks, as these newly chartered companies would be exempted from certain regulations that banks have to follow. Moreover, OCC's legal authority to charter non-depository lenders unilaterally and without Congressional assent is doubtful.[47]

- **The Consumer Financial Protection Bureau**

The Consumer Bureau seeks to promote responsible financial innovation. It has created Project Catalyst to work with FinTechs. The CFPB's Project Catalyst report issued in October 2016 under former director Richard Cordray highlighted market developments that have the potential to produce benefits to consumers.[48]

It has also, under Section 1033 of the Dodd-Frank Act, encouraged the development of data aggregators to give consumers control of their information. Section 1033 has created some tension between legacy banks and FinTechs.

On 17 November 2016, the Consumer (CFPB) had announced a request for information (RFI) to better understand the benefits and risks associated with market developments that rely on access to consumer financial records.[49] Former CFPB Director Cordray had conveyed strong support for the ability of consumers to access their financial data, and expressed "grave concerns" about reports that financial institutions are seeking to limit such access.[50] According to the Wall Street Journal, this is one part of the Dodd-Frank Act that some firms, fintechs, want preserved.[51]

Section 1033 states, in part, that banks must:

> "make available to a consumer, upon request…information relating to any transaction, series of transactions, or to the account" and "in an electronic form that can be used by computer applications."

The issue of data access has also raised concerns with consumers and some data aggregator firms (which link the consumer's bank records to his or her preferred budgeting or money management tools) that banks are purposely slowing data transfer or making applications difficult. Some press include stories on Yahoo and Bankrate.[52] The Yahoo story notes that while banks may have legitimate concerns over the safety and soundness of their account data, their bigger concern may be losing customers:

> "Data sharing isn't just about consumers owning their own data, Jason Furman, a professor at Harvard's Kennedy School, told Yahoo Finance. It's also about companies trying to stymie competition, which hurts innovation and wage growth, said Furman, former chair of the Council of Economic Affairs under President Barack Obama."

In 2017, the CFPB issued its first no-action letter to a firm, called Upstart, proposing to use alternative data to make credit decisions.[53]

- **<u>Congress</u>**

While it is yet unclear how this issue will play out under a new Trump-appointed comptroller at the helm of the OCC, there might still emerge an enacted 2018 bill in Congress to further help FinTech firms gain ground.

A House Resolution introduced in September 2016, which had bipartisan support, would create an innovation office in a number of government agencies dedicated to FinTech, as well as a system for companies to apply for protection from regulatory enforcement actions as they develop new products.[54] And Democrats could possibly support the bill because FinTech might be seen as a way to reach underbanked and unbanked consumers.[55] Similar bills introduced in the current Congress include HR H.R.5036, the Financial Technology Protection Act and H.R. 4752, the Financial Technology Innovation and Defense Act.

However, of greater concern to advocates are bills such as H.R. 3299, so-called "valid when made" legislation which has passed the House and its Senate companion S. 1642. The so-called Protecting Consumers' Access to Credit Act of 2017 would make it easier for payday lenders and other nonbanks to use rent-a bank arrangements to evade state interest rate caps by overturning a court decision.

Also, HR4439, the so-called "true lender" bill, would allow payday lenders and high-cost "marketplace lenders," to use a partner bank's charter toe vade state interest rate ceilings.[56] The bill would eliminate long-standing protections against "rent-a-bank" schemes, providing a back door for high-cost lenders into the 15 states and the District of Columbia that effectively ban predatory high cost lending through usury limits.

- **Federal Deposit Insurance Corporation**

In July 2016, the FDIC issued Examination Guidance for Third-Party Lending, supplementing existing guidance for Managing Third-Party Risk.[57] The FDIC's guidance aimed to ensure safety, soundness, and consumer compliance when banks conduct aspects of lending through a business relationship with a third party. The FDIC emphasized that banks must take full responsibility to ensure that all aspects of the lending process comply with consumer-protection laws and do not pose undue risks.[58]

In September 2017, the FDIC's 17th Annual Research Conference featured an academic panel on "Fintech and Traditional Banking."[59] Also in 2017, FinTech student lender SoFi applied for a Utah industrial bank charter and FDIC insurance, then withdrew its application after a management change.[60]

In March 2018, the FDIC settled with Cross River Bank and affiliated entities, including a FinTech, over unfair and deceptive practices related to marketing of debt consolidation loans from Freedom Debt Relief. The settlement included a set-aside of $20 million for estimated consumer restitution as well as over $1.1 million in combined civil penalties.[61] A few weeks later, the bank issued a press release after winning a FinTech industry award.[62]

In May 2018, the FDIC held a "Forum on the Use of Technology in the Business of Banking." From the prepared remarks[63] of Chairman Marty Gruenberg:

> "In addition to developments within banks, new technologies continue to generate potential competitors to traditional banks. This non-bank competition arising from innovations is not new. Nonbank financial companies have competed alongside banks for decades, and banks will need to continue to adapt to changes in the competitive landscape – regardless of whether those changes come from technology-focused companies or from other non-bank financial firms. To ensure that we are prepared to understand and address the changing landscape in financial services and the way banks use and adapt to new technologies in our roles as bank supervisor, deposit insurer, and receiver of failed institutions, the FDIC has dedicated significant resources to identifying and understanding issues with respect to emerging technologies in banking. […] This last issue – **economic inclusion - is of particular interest to us at the FDIC.**" (emphasis added)

- **Federal Trade Commission**

The FTC continues to play a role in examining the benefits and risks of the FinTech sector, from mobile payments to virtual currencies to crowdfunding and more. In April, the FTC sued peer-to-peer lender Lending Club over "hidden fees."[64] The commission uses its authority under the FTC Act and other laws to bring law-enforcement actions against companies whose deceptive or unfair actions harm consumers. The FTC has recenty issued consumer fact sheets on scams related to cryptocurrency and has scheduled a Chicago workshop for late June.[65]

The FTC maintains much of its FinTech work on a webpage.[66] The agency has conducted a series of workshops on peer-to-peer (P2P) lending and payment systems and crowdfunding, and has examined the role of Big-Data analytics in harming consumers, particularly low-income and underserved populations.[67] The FTC has scheduled a workshop on cryptocurrency scams for June 2018.[68] From its release:

> "As consumer interest in cryptocurrencies has grown, so has interest from scammers, who are always looking for new ways to take advantage of consumers. Scams involving cryptocurrencies include deceptive investment and business opportunities, bait-and-switch schemes, and deceptively marketed mining machines. The FTC has worked to educate consumers about cryptocurrencies and hold fraudsters accountable."

Also, the FTC's 2016 Big Data Report had summarized how potential inaccuracies and biases in Big-Data analytics might lead to detrimental effects for low-income and underserved populations.

Big Data may, for example, result in more individuals mistakenly being denied opportunities based on the actions of others, create and reinforce existing disparities, assist in the targeting of vulnerable consumers for fraud, may result in higher-priced goods and services for lower income communities, and may weaken the effectiveness of consumer choice, according to the report. [69]

- **U.S. Securities and Exchange Commission**

Jumping into the fray, the SEC held a first forum[70] exclusively focused on the impact of the FinTech movement on capital markets, addressing automated investment advice, blockchain and distributed-ledger technology, crowd funding and marketplace lending, and investor protection. The SEC has also linked all its work on Fintech on a Spotlight web page.[71] Issues include when blockchain firms should be regulated as securities (the agency says one test should be when cryptocurrencies conduct an "Initial Coin Offering" similar to a IPO.) The agency has also weighed in on robo-advisors[72] and issued a rule following Congressional passage of crowdfunding legislation.[73]

- **Department of the Treasury**

The Obama Treasury Department released a major white paper back in 2016 on "Opportunities and Challenges in Online Marketplace Lending." The agency had solicited comments from stakeholders, including consumer groups, on the role of FinTech. Among its findings were that the "Use of Data and Modeling Techniques for Underwriting is an Innovation and a Risk," explaining that "while data-driven algorithms may expedite credit assessments and reduce costs, they also carry the risk of disparate impact in credit outcomes and the potential for fair lending violations. Importantly, applicants do not have the opportunity to check and correct data potentially being used in underwriting decisions." The report also concluded that while there is an "opportunity to expand access to credit," many of the practices of the industry (including underwriting tools) "remain untested." Treasury called for "greater transparency" (for both borrowers and investors) and for a greater role by the federal government to monitor industry developments and also to foster more effective and fair lending practices.[74]

In 2017, in response to a Trump Executive Order, the Steven Mnuchin-led Treasury was tasked to issue a series of reports, including one expected soon that will make recommendations on Fintech.[75] Not surprisingly, an organization representing high-cost online lenders is pushing Treasury to impose a federal charter with weak regulation.[76]

In a last minute effort to influence that report, expected in June, the American Bankers Association issued a Fintech paper on May 7th. The paper predictably calls for less regulation of bank-third party relationships, passage of the "valid when made" legislation discussed above, a federal sandbox, and other bank-friendly Fintech proposals.[77]

- **<u>Conference of State Bank Supervisors</u>:**

In addition to bringing several lawsuits (which failed as the issue is not yet ripe since the OCC has not issued a regulation let alone granted a charter) against the threat of an OCC special charter that preempts stronger state consumer laws[78], the CSBS, comprised of regulators that not only regulate state-chartered banks but also numerous non-bank financial firms, has been extremely active. The CSBS prominently maintains a Vision2020 website on responsible fintech regulation.[79]

- **<u>State Attorneys General and the State Legislatures</u>**

In October 2016, representatives of the consumer protection divisions of the AGs from nearly all the states, as well as officials from the FTC and CFPB, met to discuss and coordinate activity on a range of issues affecting consumers. The meeting was sponsored by the National Association of Attorneys General (NAAG). Key panels at the meeting addressed state involvement in FinTech, payday lending, and growing threats from abusive structured settlements. "FINTECH—The New Frontier," in particular, was teed up for prominent discussion and included briefings by the FTC, the Utah Department of Financial Institutions, and academics. A particular theme emerged that many AGs believe they already have the tools to regulate and pursue legal matters regarding FinTech under state consumer-protection statutes governing unfair or deceptive acts and practices ("UDAP" laws), notwithstanding that new products may not be subject to laws specifically addressing them. Efforts to preempt state actions and regulations with respect to FinTech, such as proposed by the OCC, appear to be strongly resisted by the states.[80] This year, the Arizona AG, Mark Brnovich, has successfully pushed for the nation's first sandbox (light-touch) regulation of FinTech.[81]

<u>The Fintech Universe: A Fly-Around Of Sectors and Companies</u>

NOTE: The next version of this backgrounder will include details on some of the firms listed below.

There are many ways to define and categorize fintech companies. The field itself may be defined as "an industry composed of companies that use new technology and innovation with available resources in order to compete in the marketplace of traditional financial institutions and intermediaries in the delivery of financial services."[82] The term has also been applied to broader applications of technology, such as Bitcoin or, more generally, blockchain technology. New tech-centric companies in the insurance sector have also been similarly described, but are more often referred to as InsurTech. The FinTech space can be divided into the various business sectors a company operates in (e.g., InsurTech); divided by the types of business processes it supports (e.g., payments, investments, financing); by the customer segments the FinTech firm targets (e.g., retail, private and corporate banking); by the type of interactions the service facilitates (e.g., business-to-business or business to consumer); or by the market position it holds and whether it provides a complimentary or a competitive service (e.g., complimentary personal finance management or competitive solutions, such as peer-to-peer).[83]

In general, the most successful FinTech companies appear to be **customer centric** and **simple** to use and understand, conveniently available **online**, mostly via **mobile apps**. These companies are also typically "**legacy-free,**" able to develop flexible technology solutions or management structures with minimal expenses. Instead of innovating only one aspect of financial services, they tend to innovate across a set of practices, and develop **new business models**, products and services and delivery models. Use of **alternative data** sources or "smart data" is another hallmark of FinTech companies's business practices.[84] Some business commentators have suggested that the business models of FinTech startups are not sustainable, and that companies are able to grow and function only because of the VC and corporate funding streams.[85]

Here are some typical ways to categorize FinTech firms and some summaries of a few of the firms in each category:

1. **MARKETPLACE LENDING:**
   a. ***Direct Lenders*****:** Sofi, Kabbage, LendUp, CAN Capital, OnDeck Capital, Earnest, Zest Finance, Zopa, Tala, Common Bond.
   b. ***Platform Lenders*****:** Prosper, LendingClub Corporation, Upstart, Circle Up, Funders Club, Fundera.

2) **PAYMENTS AND BILLING:** Venmo, Square, LevelUp, Affirm, Aztec Exchange, EarnUp, iZettle, Stripe, Klarna

3) **DIGITAL WEALTH MANAGEMENT/PERSONAL FINANCIAL MANAGEMENT**: Betterment, Mint, Wealthfront, Addepar, Personal Capital, Riskanalyze, HelloWalle

4) **DISTRIBUTED LEDGER TECHNOLOGY:** Chain, Coinbase, Xapo

5) **MONEY TRANSFER REMITTANCE:** World Remit

6) **RETAIL BANKING/ NEOBANK:** Simple, Gobank, ally.

7) **INSURTECHs:** Metromile, Lemonade.

8) **DATA AGGREGATORS:** Plaid, Yodlee, MX.

Next Steps

As part of advocacy consumer and civil rights-based strategy that addresses the role of data and digital applications, there is a need for the development of a collaborative research agenda. The Big Data practices we observe and the potential risks to privacy and consumer protection cut across all sectors of the economy. Sector by sector policy solutions are unlikely to be effective, as data knows no boundaries. Still, we need to better understand the role and impact of current and emerging financial industry practices on consumers. What are the technologies, data sources, partnerships, and alliances that define the landscape? How do emerging business practices that promote data sharing among a multitude of firms impact the development of services as well as harm individual and group privacy, and how do they implicate existing consumer protections, and small business interests? Which additional protections are needed?

That CFPB Project Catalyst report issued in October 2016 under former director Richard Cordray made the following points, highlighting market developments that have the potential to produce benefits to consumers.[86] The agency gleaned these insights from research and by engaging directly with FinTech start-up companies and other stakeholders. The report emphasized the importance of ensuring that consumer protections are built into emerging products and services from the outset. The agency identified the following ways in which innovations can serve consumers:

- Expand access: Facilitating financial inclusion and making products and services available to consumers who are underserved, locked out of the banking system, or have unique or special needs.
- Improve consumer control: Empowering consumers to make day-to-day decisions or adopt spending and savings habits that are more consistent with their long-term aspirations.
- Reduce prices: Driving down costs for consumers through increased competition or adoption of technologies that reduce operating expenses.
- Increase features and functionality: Adding or improving functionality so that consumers can benefit from new financial services or financial services that work better, are easier or quicker to use, or are more widely available.
- Enhance safety and security: Enhancing the safety and security of products and services, including better defenses against data breaches, mechanisms to avoid or reduce errors, and more efficient correction of mistakes that do occur.
- Promote transparency: Improving transparency and consumer understanding, especially to help consumers choose the best products and services for themselves and use them successfully without unnecessary cost or complication.[87]

Conversely, the authoritative National Consumer Law Center has summarized a number of concerns:

- Use of consumer data in ways potentially inconsistent with the protections of the Fair Credit Reporting Act, privacy rights, and fair-lending laws.
- Skewed origination incentives that could lead to poor underwriting.
- The mandatory or default use of preauthorized electronic payments, which can weaken consumers' control over their bank accounts, cause bank account closures, and create incentives for weaker underwriting.
- Evasion of state laws, including usury caps, consumer-protection laws, and licensing and oversight requirements.

Here are a number of other concerns:

What safeguards, if any, have been put in place regarding the potential impact of discriminatory outcomes arising from data processing? How are the leading companies using these products to target vulnerable consumers, including those for whom English is not the primary language. What "best practices" have been adopted in the U.S. and in other countries regarding how to ensure the development of affordable products, fair treatment, and adequate regulation?

How are regulators more favorable to FinTech (such as the United Kingdom's Financial Conduct Authority) dealing with the industry? What problematic models and policies would we want to oppose or change if proposed for the U.S.? How can the critiques from others, such as Germany's Federal Financial Supervisory Authority (BaFin), be used to our benefit?

How do we ensure that financial services offered through mobile devices and apps are fair and provide for meaningful consumer decision-making? How do emerging technologies, including the Internet of Things, impact consumer financial services? For example, as "wearable" devices become more popular (and perhaps given to consumers for health reasons), they will also serve as ways to pay for products. What will their role be and what safeguards are required?

What consumer-lending and mobile-payment/financial-transfer products offer the most robust safeguards, including low pricing, data security, and privacy?

How are the new "RegTech" companies, which automate the compliance requirement for financial companies, incorporating consumer protection into their products? How do we assess this new way being used to address regulations?

Because of the growth of the data-driven financial marketplace, privacy safeguards are as important as ever. What privacy protections are needed to safeguard both individual and group privacy rights most effectively?

The Fair Credit Reporting Act (FCRA) should not only apply to the use of data for credit, insurance, or employment eligibility, but also for advertising and targeted marketing, and, in fact, for any kind of scoring. Are FCRA-type protections (access, correction, dispute resolution) enough, or do we need to have additional safeguards against discriminatory effects?

Regulators must continue to enforce the Electronic Funds Transfer Act's protections, including its prohibition on conditioning loans on a requirement that consumers automatically agree to loan payments by electronic transfer or preauthorized ACH.[88]

How do we regulate data brokers appropriately?

How do we broaden financial inclusion and include those historically discriminated against who are likely to be most harmed by Big-Data practices?

Should social media data be used to evaluate eligibility for financial services or insurance products? (Note, this is behavioral data unrelated to the product.)

Should social media data be used to target advertising for financial services or insurance products?

Should discounts for financial or insurance products be given in exchange for revealing additional personal information? (Note here that due to the so called "unravelling" effect and the undermining of the whole concept of insurance—sharing risk, rather than sorting out the low from the high risk—in my mind the answer is "no.")

What standards or criteria need to be in place to ensure that any new data for credit evaluations are being used appropriately? Fairness, effectiveness, relationship to loan product, unintended consequences?

When the application of profiles causes harm, the liability for this harm has to be determined—who is to be held accountable? Is the software programmer, the profiling service provider, or the profiled user to be held accountable? How do we account for market externalities? Incorporate costs at the source (user/producer of the algorithm) or make the subject of the algorithm pay (as we do now), or make society at large compensate those harmed?

[1] Comptroller Thomas Curry's remarks to a conference Friday 2 December 2016 as well as an outline of the OCC proposal can be found here https://occ.gov/news-issuances/news-releases/2016/nr-occ-2016-152.html. A letter from 49 consumer and community groups, expressing concerns, but prepared before the announcement, can be found here http://ourfinancialsecurity.org/wp-content/uploads/2016/12/OCC-fintech-charter-49-groups-FILED-12-1-2016.pdf .

[2] In December 2018, a court ruled that a lawsuit against the OCC brought by the New York State Department of Financial Services was not yet ripe because the OCC had not yet actually filed a charter, nor had any firms applied for one. See news release, "Court Rules in New York-OCC Case", 15 Dec 2017 available at https://www.csbs.org/court-rules-new-york-occ-case In May 2018, a different court ruled against the Conference of State Bank Supervisors for similar reasons. See news release, "Statement by John Ryan on Federal Court Decision in CSBS vs. OCC", 1 May 2018, https://www.csbs.org/statement-john-ryan-federal-court-decision-csbs-vs-occ

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- Result in more individuals mistakenly being denied opportunities based on the actions of others.
- Create or reinforce existing disparities.
- Expose sensitive information.
- Assist in the targeting of vulnerable consumers for fraud
- Create new justifications for exclusion.
- Result in higher-priced goods and services for lower income communities.
- Weaken the effectiveness of consumer choice.

Federal Trade Commission, "Big Data: A Tool for Inclusion or Exclusion? Understanding the Issues," Jan. 2016, https://www.ftc.gov/reports/big-data-tool-inclusion-or-exclusion-understanding-issues-ftc-report. Other than emphasizing the importance of adhering to existing laws, particularly the FCRA, ECO and the FTC Act, the report was thin on concrete guidance to address the risks of uses of Big-Data analytics.

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